



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES**

-----X  
Application of:

Thomas Lich

For: DEVICE FOR DETECTING AN  
OBSTACLE UNDERRIDE

Filed: April 22, 2005

Serial No.: 10/532,333  
-----X

: Examiner: Barry J. Gooden Jr.

: Art Unit: 3616

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**AARON C. DEDICH**  
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**APPEAL BRIEF PURSUANT TO 37 C.F.R. § 41.37**

SIR:

In the above-identified patent application ("the present application"), Appellants filed a Notice Of Appeal on January 13, 2010, from the Final Office Action issued by the U.S. Patent and Trademark Office on October 14, 2009, so that the two-month appeal brief due date is March 15, 2010 (since March 13, 2010 was a Saturday).

In the Final Office Action, claims 10 to 25 were finally rejected. A Response After A Final Office Action was mailed on December 14, 2009, and an Advisory Action was mailed on December 30, 2009.

It is understood for purposes of the appeal that any Amendments to date have already been entered by the Examiner, and that the Response After Final does not require entry since it included no amendments.

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*As to the length of the "concise explanation" of the subject matter defined in each of the claims involved in the appeal (see 41.37), the "concise explanation" language is like the "concise explanation" requirement of former Rule 37 C.F.R. § 1.192. Accordingly, the length of the concise explanation provided is acceptable, since it would have been acceptable under 37 C.F.R. § 1.192 and since it specifically defines the subject matter of the independent claims involved and in the appeal. In the filing of many appeal briefs under the old rule for the present Assignee, the length of the "concise explanation" has always been ultimately accepted by the Patent Office.*

It is therefore respectfully submitted that this Appeal Brief complies with 37 C.F.R. § 41.37. Although no longer required by the rules, this Brief is submitted in triplicate as a courtesy to the Appeals Board.

It is respectfully submitted that the final rejections of claims 10 to 25 should be reversed for the reasons explained below.

**1. REAL PARTY IN INTEREST**

The real party in interest in the present appeal is Robert Bosch GmbH (“Robert Bosch”) of Stuttgart in the Federal Republic of Germany. Robert Bosch is the assignee of the entire right, title and interest in the present application.

**2. RELATED APPEALS AND INTERFERENCES**

There are no interferences or other appeals related to the present application, which “will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal”.

**3. STATUS OF CLAIMS**

**CLAIMS 1 TO 9 ARE CANCELED.**

A. Claims 10 to 25 are rejected under U.S.C. § 112, first paragraph, as to the written description requirement.

B. Claims 10 to 13, and 16 are rejected under 35 U.S.C. § 102(b) as anticipated by German Patent No. DE 19822184 (“Andre”).

C. Claims 14, 15 and 18 to 25 are rejected under 35 U.S.C. § 103(a) as unpatentable over the Andre reference.

D. Claim 17 is rejected under 35 U.S.C. § 103(a) as unpatentable over the Andre reference as applied to claim 10 in view of U.S. Patent No. 6,408,237 (“Cho”).

Appellant therefore appeals from the final rejections of pending claims 10 to 25. A copy of all of the pending and appealed claims 10 to 25 is attached hereto in the Claims Appendix.

**4. STATUS OF AMENDMENTS**

In response to the Final Office Action mailed on October 14, 2009, Appellants filed a Response After A Final Office Action (with no amendments), which was mailed on December 14, 2009.

It is understood for purposes of the appeal that any Amendments to date have already been entered by the Examiner, and that the Response After Final does not require entry since it included no amendments.

## **5. SUMMARY OF CLAIMED SUBJECT MATTER**

The concise explanation of the summary of the claimed subject matter is as follows, as described in the context of the present application.

*As to claim 10, it is to a device for detecting an obstacle underride, including at least one vertical distance measuring device situated on a vehicle front and aligned vertically to detect an obstacle underride.* A distance measuring device is aligned vertically to detect a truck underride. Ultrasonic sensors (or also radar-based sensors) may be used. These sensors may be installed in the bumper area. Thus, distance measurement takes place in the z direction. The distance measuring device (i.e., the respective sensors) may be installed in a vertical position. This results in sensing being possible in the z direction. (See Specification, pg. 4, lines 6 to 14). Figure 1 shows a top view of the device, in which a bumper 12 is mounted on a longitudinal chassis beam 10 on both sides of a body. The longitudinal chassis beams are connected to one another via a cross beam 11. Bumper 12 has four vertically aligned distance measuring devices 13-16. (See Specification, pg. 4, lines 24 to 27 and Fig. 1).

*As to claim 10, it also includes the feature in which the vertical distance measuring device measures only in a substantially vertical direction away from a vehicle underside.* The distance measuring device is only to be aligned essentially vertically. (See Specification at page 1, lines 10 to 11) A “distance measuring device is provided which is aligned vertically to detect such a truck underride,” and the “distance measurement takes place in the z direction.” (See Specification at page 4, lines 6 to 9). Moreover, the “[s]ensors 23 [shown in Figure 2] have an upward sensing area.” (See Specification at page 5, lines 2 to 3). A “radar sensor, for example, which is installed on the bumper in the horizontal direction, monitors the surroundings.” (See Specification at page 3, lines 10 to 12). Figure 2 shows a side view of the device, in which a bumper 21 is mounted on vehicle 20. Sensors 23 have an upward sensing area 22. (See Specification, pg. 5, lines 1 to 3; and Fig. 2).

*As to claim 14, which depends from claim 10, it further includes the feature in which the vertical distance measuring device is situated on a bumper, as explained above.* (See Specification, pg. 4, lines 6 to 14), and (see Specification, pg. 4, lines 24 to 27; and Fig. 1).

*As to claim 15, which depends from claim 14, it further includes the feature in which the at least one vertical distance measuring device includes four vertical distance measuring devices for carrying out distance measurements at four locations on the bumper distanced from one another, as explained above. (See Specification, pg. 4, lines 6 to 14), and (see Specification, pg. 4, lines 24 to 27; and Fig. 1).*

*As to claim 18, which depends from claim 10, it further includes the feature in which the vertical distance measuring device is situated on a rear bumper, as explained above. (See Specification, pg. 4, lines 6 to 14), and (see Specification, pg. 4, lines 24 to 27; and Fig. 1).*

*In summary, the presently claimed subject matter is to a device for detecting an obstacle underride, including at least one vertical distance measuring device situated on a vehicle front and aligned vertically to detect an obstacle underride, wherein the vertical distance measuring device measures only in a substantially vertical direction away from a vehicle underside. (See claim 10).*

*In further summary, the presently claimed subject matter also includes the feature in which the vertical distance measuring device is situated on a bumper (see claim 14) as well as the features of claim 10 as described above. (See claim 10).*

*In further summary, the presently claimed subject matter also includes the feature in which the at least one vertical distance measuring device includes four vertical distance measuring devices for carrying out distance measurements at four locations on the bumper distanced from one another (see claim 15), as well as the features of claim 14 as described above. (See claim 14).*

*In further summary, the presently claimed subject matter also includes the feature in which the vertical distance measuring device is situated on a rear bumper (see claim 18), as well as the features of claim 10 as described above. (See claim 10).*

*Finally, the appealed claims include no means-plus-function language and no step-plus-function claims, so that 37 C.F.R. 41.37(v) is satisfied as to its specific requirements for such claims, since none are present here. Also, the present application does not contain any step-plus-function claims because the method claims in the present application are not "step*

plus function” claims because they do not recite “a step for”, as required by the Federal Circuit and as stated in Section 2181 of the MPEP.

**6. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

A. Whether claims 10 to 25 are unpatentable under the first paragraph of U.S.C. § 112, as to the written description requirement.

B. Whether claims 10 to 13, and 16 under 35 U.S.C. § 102(b) are anticipated by German Patent No. DE 19822184 (“Andre”).

C. Whether claims 14, 15 and 18 to 25 under 35 U.S.C. § 103(a) are unpatentable over the Andre reference.

D. Whether claim 17 under 35 U.S.C. § 103(a) is unpatentable over the Andre reference (as applied to claim 10) in view of U.S. Patent No. 6,408,237 (“Cho”).

**7. ARGUMENT**

**A. THE WRITTEN DESCRIPTION REJECTIONS OF CLAIMS 10 TO 25**

Claims 10 to 25 are rejected under U.S.C. § 112, first paragraph, as to the written description requirement.

“To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention.” M.P.E.P. § 2163 (citing *Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1319, 66 USPQ2d 1429, 1438 (Fed. Cir. 2003); *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563, 19 USPQ2d 1111, 1116 (Fed. Cir. 2004)). Here, the claimed subject matter includes measuring only in a substantially vertical direction. This is supported by the Specification, as explained herein.

The Final Office Action (at page 2) conclusorily asserts that claim 10 recites “measures *only* in a substantially vertical direction,” but that, the specification does not “provide support for the claim terminology.” In addition, the Final Office Action (at page 7) conclusorily asserts that “alignment [of the distance measuring device] does not equate to the range of measurement.”

In fact, the Substitute Specification at page 1, lines 10 to 11, specifically states that “*The distance measuring device is only to be aligned essentially vertically.*” In addition, the Substitute Specification at page 4, lines 6 to 9, further states that a “*distance measuring device is provided which is aligned vertically to detect such a truck underride,*” and that, “*distance measurement takes place in the z direction.*” Furthermore, the Substitute Specification (at page 4, lines 12 to 17) states that:

*The distance measuring device ... is typically installed in a vertical position. This results in sensing being possible in the z direction. During normal driving, no obstacle is typically to be detected in the bumper area, so that the sensors send predominantly zero signals. Should an obstacle or a truck appear in this area, the sensor then sends a signal different from zero.*

Moreover, the Substitute Specification (at page 5, lines 2 to 3) states that “[s]ensors 23 [shown in Figure 2] have an upward sensing area.” In contrast, the Substitute Specification at page 3, lines 10 to 12, states that a “*radar sensor, for example, which is installed on the bumper in the horizontal direction, monitors the surroundings.*”

Accordingly, the Substitute Specification plainly differentiates between a sensor installed in a horizontal direction that monitors the surroundings, and a sensor aligned in a vertical direction that measures in a z direction (or vertically). Accordingly, the Substitute Specification makes clear that the alignment of the sensor is correlated with the resultant measuring direction.

Therefore, contrary to the conclusory assertions of the Final Office Action, it is respectfully submitted that the vertical alignment also results in vertical distance measurement, as provided for in the context of the presently claimed subject matter. This is made clear by the fact that the sensor sends a non-zero signal only when an obstacle appears in the bumper area. During normal driving, when no obstacle is in the bumper area, zero signals are sent by the sensor because it senses only in a vertical direction.

If the sensor also sensed in a non-vertical direction, it would not send predominantly zero signals during normal driving because objects laterally adjacent the vehicle would be sensed. Thus, the Specification clearly supports the feature in which the measuring device measures only in a substantially vertical direction. In addition, Figures 1 and 2 of the specification plainly provide that the vertical distance measuring device measures only in a substantially vertical direction away from a vehicle underside. In particular, Figure 2 clearly

provides an upward sensing area 22 of measuring sensor 23. Thus, the Substitute Specification plainly provides plain and specific support for claim 10.

It is also respectfully submitted that the Final Office Action reflects a literalistic and therefore “in haec verba” view of the claims. In the case of *Chemcast Corp. v. Arco Ind. Corp.*, 5 U.S.P.Q.2d 1225, 1237 (E.D. Mich. 1987), for example, the court made plain that amendments are proper when they “*merely clarify or make definite that which was expressly or inherently disclosed in the parent application or . . . conform the specification to matter originally disclosed in the drawings or claims*” or *when it is “something that might fairly be deduced from the original application.”* (Quoting *Stearn v. Superior Distributing Co.*, 674 F.2d 539, 544, 215 U.S.P.Q. 1089, 1093 (6th Cir. 1982) (citations omitted)).

Still further, as stated by the Board in Ex parte Harvey, 3 U.S.P.Q. 2d 1626, 1627 (Bd. Pat. App. Int. 1986) (emphasis added, citations omitted):

**Compliance with the written description requirement of Section 112 only requires that appellant's application contain sufficient disclosure, *expressly or inherently*, to make it clear to persons skilled in the art that appellant possessed the subject matter claimed. The test for determining compliance with the written description requirement is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession of the claimed subject matter, rather than the presence or absence of literal support in the specification for the claimed language.**

Likewise, as stated by the Board in Ex parte Sorenson, 3 U.S.P.Q. 2d 1462, 1463 (Bd. Pat. App. Int. 1987) (emphasis added):

**[W]e are mindful that appellant's specification need not describe the claimed invention in *ipsis verbis* to comply with the written description requirement. *The test is whether the originally filed specification disclosure reasonably conveys to a person having ordinary skill that applicant had possession of the subject matter later claimed. . . . Moreover, the Examiner has the initial burden of presenting evidence or reasons why persons skilled in the art would not recognize in appellant's specification disclosure a description of the invention defined by the claims.***

In particular, the Sorenson Board, noting that the examiner only essentially stated that the claim expressions at issue did not “appear in the original disclosure” and that the claim expressions were therefore “not adequately supported by the few specific compounds in the specification”, found that the examiner had not met his initial burden of “presenting evidence



why a person having ordinary skill in the art would not recognize in appellant's specification a description of the invention defined by the claims” — and that the “only reasoning presented” that the Board could discern was an “example of *ipse dixit* reasoning, resting on a bare assertion by the Examiner”.

Thus, to satisfy the written description requirement, all that is required is “reasonable clarity.” (MPEP § 2163.02). Also, an adequate description may be made in any way through express, implicit, or even inherent disclosures in the application, including words, structures, figures, diagrams, and/or formulae. (MPEP §§ 2163(I) & 2163.02).

Accordingly, claim 10 satisfies the written description requirement, and it is therefore allowable, as are its dependent claims 11 to 25.

It is therefore respectfully submitted that the “written description” rejections of the claims should be withdrawn.

#### **B. THE ANTICIPATION REJECTIONS OF CLAIMS 10 TO 13 AND 16**

Claims 10 to 13, and 16 were rejected under 35 U.S.C. § 102(b) as anticipated by German Patent No. DE 19822184 (“Andre”).

As regards the anticipation rejections of the claims, to reject a claim under 35 U.S.C. § 102, the Office must demonstrate that each and every claim feature is identically described or contained in a single prior art reference. (*See Scripps Clinic & Research Foundation v. Genentech, Inc.*, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991)). As explained herein, it is respectfully submitted that the Final Office Action does not meet this standard, for example, as to all of the features of the claims. Still further, not only must each of the claim features be identically described, an anticipatory reference must also enable a person having ordinary skill in the art to practice the claimed subject matter. (*See Akzo, N.V. v. U.S.I.T.C.*, 1 U.S.P.Q.2d 1241, 1245 (Fed. Cir. 1986)).

As further regards the anticipation rejections, to the extent that the Final Office Action may be relying on the inherency doctrine, it is respectfully submitted that to rely on inherency, the Office must provide a “basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic *necessarily* flows from the teachings of the applied art.” (*See* M.P.E.P. § 2112; emphasis in original; and *see Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Int’f. 1990)). Thus, the M.P.E.P. and the

case law make clear that simply because a certain result or characteristic may occur in the prior art does not establish the inherency of that result or characteristic.

### **CLAIM 10**

Claim 10 includes the feature in which *the vertical distance measuring device measures only in a substantially vertical direction away from a vehicle underside*. As explained above, support for this claim feature is disclosed in the Substitute Specification (e.g., Substitute Specification at page 1, lines 10 to 11; page 4, lines 6 to 17; page 5, lines 2 to 3; Abstract, lines 1 to 3; and Figures 1 and 2).

As to the “Andre” reference, Figure 1 concerns a spacer sensor that measures horizontal distances, as well as vertical distances toward the vehicle underside. In this regard, the “Andre” reference refers to combining its spacer sensor with a speed control sensor or a park assist sensor. This arrangement wholly differs from the presently claimed subject matter, since the sensor of the “Andre” reference does not measure only in a substantially vertical direction away from a vehicle underside, as provided for in the context of the presently claimed subject matter of claim 10.

Therefore, the “Andre” reference does not identically disclose (or even suggest) the feature in which *the vertical distance measuring device measures only in a substantially vertical direction away from a vehicle underside*, as provided for in the context of claim 10.

In the Advisory Action, it is conclusorily asserted at page 2, that the sensor of the applied art references is aligned in the vertical direction. However, even if the sensor of the prior art is aligned in the vertical direction this is not the same as *the vertical distance measuring device measuring only in a substantially vertical direction away from a vehicle underside*, as provided for in the context of claim 10, **because Andre does not identically disclose (or suggest) that the alignment of the sensor is correlated with the resultant measuring direction**. Accordingly, claim 10 is allowable, as are its dependent claims 11 to 13 and 16.

Withdrawal of these anticipation rejections is therefore respectfully requested.

**C. THE OBVIOUSNESS REJECTIONS  
OF CLAIMS 14, 15 AND 18 TO 25**

Claims 14, 15 and 18 to 25 were rejected under 35 U.S.C. § 103(a) as unpatentable over the “Andre” reference.

To reject a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish *prima facie* obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Also, as clearly indicated by the Supreme Court in *KSR*, it is “important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. *See KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007). In this regard, the Supreme Court further noted that “rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.*, at 1396. Second, there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

**CLAIMS 14, 15 AND 18 TO 25**

Claims 14, 15 and 18 to 25 depend from claim 10, and they are therefore allowable for essentially the same reasons as claim 10. Moreover, it is respectfully submitted that the obviousness assertions do not reflect the particular benefits derived from the features of claims 14, 15, and 18 to 25, and parent claim 10, as provided for in the Substitute Specification (including, for example, at page 1, lines 19 to 27; and page 4, lines 8 to 12, and lines 30 to 31).

**CLAIMS 14 AND 18**

In addition, as admitted by the Final Office Action at page 4, the “Andre” reference does not disclose (or even suggest) the feature in which the vertical distance measuring device is situated on a bumper, nor that the vertical distance measuring device is situated on a rear bumper, as provided for in the context of claims 14 and 18, so that these claims are allowable for these further reasons.

**CLAIM 15**

Further, the Final Office Action admits at page 5 that the “Andre” reference does not disclose (or even suggest) the feature in which the at least one vertical distance measuring device includes four vertical distance measuring devices for carrying out distance measurements at four locations on the bumper distanced from one another, as provided for in the context of claim 15, so that claim 15 is allowable for this further reason.

Accordingly, claims 14, 15, and 18 to 25 are allowable for at least the above reasons.

**D. THE OBVIOUSNESS REJECTION OF CLAIM 17**

Claim 17 was rejected under 35 U.S.C. § 103(a) as unpatentable over the “Andre” reference as applied to claim 10 in view of Cho, U.S. Patent No. 6,408,237.

**CLAIM 17**

Claim 17 depends from claim 10 and it is therefore allowable for at least the same reasons as claim 10, since the secondary “Cho” reference does not cure -- and is not asserted to cure -- the critical deficiencies of the principal reference. Specifically, the “Cho” reference does not disclose (or even suggest) the feature in which the vertical distance measuring device measures only in a substantially vertical direction away from a vehicle underside, as provided for in the context of claim 10. It is also respectfully submitted that configuring the device to sense pedestrians is not obvious in view of the particular benefits derived from the features of claim 17, and base claim 10, as explained in the Substitute Specification (including, for example, at page 2, lines 10 to 24).

Accordingly, claim 17 is allowable for at least the above reasons.

Withdrawal of the obviousness rejections is therefore respectfully requested.

*As further regards all of the obviousness rejections, any Official Notice is respectfully traversed to the extent that the Examiner has not provided, as requested, specific evidence to establish those assertions and/or contentions that may be supported by that Official Notices under 37 C.F.R. § 1.104(d)(2) or otherwise. In particular, the Examiner did not provide an affidavit and/or published information concerning these assertions, even though the § 103 rejections are apparently being based on assertions that draw on facts within the personal knowledge of the Examiner, since no support was provided for these otherwise conclusory and unsupported assertions. (See also MPEP § 2144.03).*

Accordingly, claims 10 to 25 are allowable for these further reasons.

As further regards each of the obviousness rejections, it is respectfully submitted that the cases of In re Fine, *supra*, and In re Jones, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992), make plain that the Office's generalized assertions that it would have been obvious to modify or combine the references do not properly support a § 103 rejection. It is respectfully submitted that those cases make plain that the Answer reflects a subjective “obvious to try” standard, and therefore does not reflect the proper evidence to support an obviousness rejection based on the references relied upon. In particular, the Court in the case of In re Fine stated that:

The PTO has the burden under section 103 to establish a *prima facie* case of obviousness. It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. This it has not done. . . .

**Instead, the Examiner relies on hindsight in reaching his obviousness determination. . . . One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.**

In re Fine, 5 U.S.P.Q.2d at 1598 to 1600 (citations omitted; italics in original; emphasis added). Likewise, the Court in the case of In re Jones stated that:

Before the PTO may combine the disclosures of two or more prior art references in order to establish *prima facie* obviousness, there must be some suggestion for doing so, found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. . . .

**Conspicuously missing from this record is any evidence, other than the PTO's speculation (if it be called evidence) that one of ordinary skill . . . would have been motivated to make the modifications . . . necessary to arrive at the claimed [invention].**

In re Jones, 21 U.S.P.Q.2d at 1943, 1944 (citations omitted; italics in original).

That is exactly the case here since it is believed and respectfully submitted that the Office Actions to date offer no evidence whatsoever, but only conclusory hindsight, reconstruction and speculation, which these cases have indicated does not constitute evidence that will support a proper obviousness finding. Unsupported assertions are not evidence as to why a person having ordinary skill in the art would be motivated to modify or combine references to provide the claimed subject matter of the claims to address the problems met thereby. Accordingly, the Office must provide proper evidence of a motivation for modifying or combining the references to provide the claimed subject matter.

Also, the Federal Circuit in the case of In re Kotzab has made plain that even if a claim concerns a “technologically simple concept” — which is not the case here — there still must be some finding as to the “specific understanding or principle within the knowledge of a skilled artisan” that would motivate a person having no knowledge of the claimed subject matter to “make the combination in the manner claimed,” stating that:

In this case, the Examiner and the Board fell into the hindsight trap. The idea of a single sensor controlling multiple valves, as opposed to multiple sensors controlling multiple valves, is a technologically simple concept. With this simple concept in mind, the Patent and Trademark Office found prior art statements that in the abstract appeared to suggest the claimed limitation. But, there was no finding as to the specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge of Kotzab's invention to make the combination in the manner claimed. In light of our holding of the absence of a motivation to combine the teachings in Evans, we conclude that the Board did not make out a proper prima facie case of obviousness in rejecting [the] claims . . . under 35 U.S.C. Section 103(a) over Evans.

In re Kotzab, 55 U.S.P.Q.2d 1313, 1318 (Fed. Cir. 2000) (emphasis added). Here again, there have been no such findings to establish that the features discussed above of the rejected claims are met by the reference relied upon. As referred to above, any review of the reference, whether taken alone or combined, makes plain that the reference simply does not describe the features discussed above of the rejected claims.

Thus, the proper evidence of obviousness must show why there is a suggestion as to the reference so as to provide the subject matter of the claimed subject matter and its benefits.

In short, there is no evidence that the reference relied upon, whether taken alone or otherwise, would provide the features of the claims discussed above. It is therefore respectfully submitted that the claims are allowable for these reasons.

As still further regards all of the obviousness rejections of the claims, it is respectfully submitted that a proper *prima facie* case has not been made in the present case for obviousness, since the Office Actions to date never made any findings, such as, for example, regarding in any way whatsoever what a person having ordinary skill in the art would have been at the time the claimed subject matter of the present application was made. (See *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998) (the “factual predicates underlying” a *prima facie* “obviousness determination include the scope and content of the prior art, the differences between the prior art and the claimed invention, and the level of ordinary skill in the art”)). It is respectfully submitted that the proper test for showing obviousness is what the “combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art”, and that the Patent Office must provide particular findings in this regard — the evidence for which does not include “broad conclusory statements standing alone”. (See *In re Kotzab*, 55 U.S.P.Q. 2d 1313, 1317 (Fed. Cir. 2000) (citing *In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1618 (Fed. Cir. 1999) (obviousness rejections reversed where no findings were made “concerning the identification of the relevant art”, the “level of ordinary skill in the art” or “the nature of the problem to be solved”))). It is respectfully submitted that there has been no such showings by the Office Actions to date or by the Advisory Action.

In fact, the present lack of any of the required factual findings forces both Appellants and this Appeals Board to resort to unwarranted speculation to ascertain exactly what facts underly the present obviousness rejections. The law mandates that the allocation of the proof burdens requires that the Patent Office provide the factual basis for rejecting a patent application under 35 U.S.C. § 103. (See *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984) (citing *In re Warner*, 379 F.2d 1011, 1016, 154 U.S.P.Q. 173, 177 (C.C.P.A. 1967))). In short, the Examiner bears the initial burden of presenting a proper *prima facie* unpatentability case — which has not been met in the present case. (See *In re Oetiker*, 977 F.2d 1443, 1445, 24, U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992)).

**CONCLUSION**

In view of the above, it is respectfully requested that the rejections of the finally rejected claims 10 to 25 be reversed, and that these claims be allowed as presented.

Dated: 3/15/2010

Respectfully submitted,


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**CLAIMS APPENDIX**

1-9. (Canceled).

10. A device for detecting an obstacle underride, comprising:

at least one vertical distance measuring device situated on a vehicle front and aligned vertically to detect an obstacle underride, wherein the vertical distance measuring device measures only in a substantially vertical direction away from a vehicle underside.

11. The device according to claim 10, wherein the vertical distance measuring device includes at least one transceiver.

12. The device according to claim 11, wherein the at least one transceiver includes one of an ultrasonic sensor or a radar sensor.

13. The device according to claim 10, wherein the vertical distance measuring device includes at least one video sensor.

14. The device according to claim 10, wherein the vertical distance measuring device is situated on a bumper.

15. The device according to claim 14, wherein the at least one vertical distance measuring device includes four vertical distance measuring devices for carrying out distance measurements at four locations on the bumper distanced from one another.

16. The device according to claim 10, wherein the device is connectable to a control unit for a restraining arrangement in such a way that the control unit triggers the restraining arrangement as a function of a signal of the device.

17. The device according to claim 10, wherein the device is configured to sense pedestrians.

18. The device according to claim 10, wherein the vertical distance measuring device is situated on a rear bumper.

19. The device according to claim 18, wherein the at least one vertical distance measuring device includes four vertical distance measuring devices for carrying out distance measurements at four locations on the bumper distanced from one another.

20. The device according to claim 19, wherein the vertical distance measuring device includes at least one video sensor.

21. The device according to claim 19, wherein the vertical distance measuring device includes at least one transceiver, wherein the at least one transceiver includes one of an ultrasonic sensor or a radar sensor.

22. The device according to claim 15, wherein the vertical distance measuring device includes at least one video sensor.

23. The device according to claim 15, wherein the vertical distance measuring device includes at least one transceiver, wherein the at least one transceiver includes one of an ultrasonic sensor or a radar sensor.

24. The device according to claim 14, wherein the vertical distance measuring device sends predominantly zero signals if an obstacle is not detected in an area above the bumper, and sends non-zero signals if the obstacle is detected in the area above the bumper.

25. The device according to claim 18, wherein the vertical distance measuring device sends predominantly zero signals if an obstacle is not detected in an area above the rear bumper, and sends non-zero signals if the obstacle is detected in the area above the rear bumper.

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EVIDENCE APPENDIX

Appellants have not submitted any evidence pursuant to 37 CFR Sections 1.130, 1.131 or 1.132, and do not rely upon evidence entered by the Examiner.

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RELATED PROCEEDINGS INDEX

There are no interferences or other appeals related to the present application.